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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,831	07/30/2003	Akira Tsumiyama	SN-US035024	7279

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EXAMINER

LUONG, VINH

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,831	TSUMIYAMA, AKIRA	
	Examiner	Art Unit	
	Vinh T. Luong	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 15-17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10-14 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Vinh T. Luong
Primary Examiner

Attachment(s)

- | | |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input checked="" type="checkbox"/> Other: <u>Attachment</u>.</p> |
|---|--|

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1. The Amendment filed on September 22, 2005 has been entered.
2. Applicant's election without traverse of species of Figs. 1-9 in the reply filed on April 14, 2005 is acknowledged.
3. Claims 9 and 15-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 14, 2005.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-5, 7, 8, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US Patent No. 5,910,193).

Regarding claim 1, Chen teaches a bicycle control device comprising:

a mounting portion 2 adapted to be coupled to a bicycle;

a control mechanism 3 coupled to the mounting portion 2; and

a control lever 4 operatively coupled to the control mechanism 3, the control lever 14 including an attachment section (at 40 in Fig. 1, see Attachment 1), an intermediate section (Att. 1) extending from the attachment section (Att. 1) and an actuating section (Att. 1) extending from the intermediate section (Att. 1), the attachment section (Att. 1) being operatively coupled to the control mechanism 3, *at least one of* the intermediate section (Att. 1) and the actuating section (Att. 1) having a hollow zone 43 formed therein that extends axially along the at least one of the intermediate section (Att. 1) and the actuating section (Att. 1) of the control lever 4, the control lever 4 being constructed of a material having an internal bore 43 (Fig. 1) extending axially to form the hollow zone 43 with the internal bore being surrounded by

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the material along a majority of an axial length of the internal bore 43, the internal bore 43 having a substantially circular transverse cross-sectional shape 43 such that the control lever 4 has a non-uniform wall thickness (Att. 1) as measured in a direction transverse to the axially extending internal bore between the internal bore 43 and an external surface of the at least one of the intermediate section (Att.) and the actuating section having the hollow zone 43 formed therein.

Chen teaches the invention substantially as claimed. However, Chen does not explicitly teach to form the lever of cast material.

It is common knowledge in the art to form Chen's lever of cast material in order to reduce the cost of manufacturing. Cast material is notoriously well known in bicycle lever art as evidenced by the cited reference. See, e.g., US Patent No. 5,493,933 issued to Kelly (col. 4, lines 12-35) and *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) and MPEP 2144.07.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form Chen's lever of cast material in order to reduce the cost of manufacturing as taught or suggested by common knowledge in the art.

Regarding claim 2, the control lever 4 is operatively coupled to the control mechanism 3 to inherently move along a first plane between a rest position and a operating position and along a second plane substantially perpendicular to the first plane between the rest position and a first position vertically spaced from the rest position in a manner similar to Applicant's Figs. 8 and 9.

Regarding claim 3, the control mechanism 3 includes a shift control mechanism 3 that is arranged and configured to control movement of a shift control cable 89 upon movement of the control lever 4.

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Regarding claim 4, the control mechanism includes a brake control mechanism 3. See col. 1, line 66 et seq. Note that claim 3 is dependent upon claim 1 and claim 4 is also dependent upon claim 1. Therefore, the interpretation of the same element 3 as the shift/brake control and the cable 89 as the shift/brake cable is not a double inclusion because claim 3/1 and claim 4/1 are different claims.

Regarding claim 5, Chen's hollow zone 43 is formed in the intermediate section and has a plug 60 mounted therein at a free end of the intermediate section to form the hollow interior area 43. To rearrange the location of Chen's hollow zone 43 to the actuating section would have been a matter of choice in design because the claimed structure and the function it performs are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995). See also legal precedents regarding rearrangement of parts in MPEP 2144.04.

Regarding claim 7, Chen's material inherently includes aluminum in order to be lightweight. On the other hand, note that aluminum is a notorious well known material in bicycle art as evidenced by the cited references. See, e.g., US Patent No. 5,584, 210 (col. 2, lines 38-45) and US Patent No. 4,308,761 (col. 4, lines 1 and 2). See also *In re Leshin*, and MPEP 2144.07, *supra*.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form Chen's lever of cast aluminum in order to reduce its weight as taught or suggested by common knowledge in the art.

Regarding claim 8, Chen teaches a bicycle control device comprising:

a mounting portion 2 adapted to be coupled to a bicycle;

a control mechanism 3 coupled to the mounting portion 2; and

a control lever 4 operatively coupled to the control mechanism 3, the control lever 14 including an attachment section (at 40 in Fig. 1, see Attachment 1), an intermediate section (Att. 1) extending from the attachment section (Att. 1) and an actuating section (Att. 1) extending from the intermediate section (Att. 1), the attachment section (Att. 1) being operatively coupled to the control mechanism 3, *at least one of* the intermediate section (Att. 1) and the actuating section (Att. 1) having a hollow zone 61 formed therein that extends axially along the at least one of the intermediate section (Att. 1) and the actuating section (Att. 1) of the control lever 4, the hollow zone 61 being a blind bore that is open at a free end of the intermediate section (Att.).

Chen teaches the invention substantially as claimed. However, Chen's hollow section is at the intermediate section. To rearrange the location of Chen's hollow zone 61 to the actuating section would have been a matter of choice in design because the claimed structure and the function it performs are the same as the prior art. *In re Chu, supra*. See also legal precedents regarding rearrangement of parts in MPEP 2144.04, *supra*.

Regarding claim 20, it is common knowledge in the art to form Chen's lever of cast material in order to reduce the cost of manufacturing. Cast material is notoriously well known in bicycle lever art as evidenced by the cited reference. See, e.g., US Patent No. 5,493,933 issued to Kelly (col. 4, lines 12-35) and *In re Leshin* and MPEP 2144.07, *supra*. In addition, note that the patentability of product does not depend on its method of production ("drilled in order to form the hollow zone"). *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and MPEP 2113.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to form Chen's lever of cast material in order to reduce the cost of manufacturing as taught or suggested by common knowledge in the art.

6. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuta (US Patent No. 5,775,168).

Regarding claim 10, Furuta teaches a bicycle control device comprising:

a mounting portion 3 adapted to be coupled to a bicycle handlebar 1;

a control mechanism 9 coupled to the mounting portion 3; and

a control lever 2 or 2, 40 operatively coupled to the control mechanism 9 to move along a first plane (P1. See Attachment 2) between a rest position and a operating position and along a second plane (P2, Att. 2) substantially perpendicular to the first plane (Att. 2) between the rest position and a first position vertically spaced from the rest position, the control lever 2 or 2, 40 including an attachment section (Att. 2) and an actuating section (Att. 2) extending from the attachment section (Att. 2), the attachment section (Att. 2) being operatively coupled to the control mechanism 9, the actuating section (Att. 2) having a first actuation surface extending in a direction substantially perpendicular to the first plane and an inclined second actuation surface (Att. 2) facing substantially away from the first actuation surface (Att. 2) downwardly and towards the handlebar 1, 1A, the inclined second actuation surface (Att. 2) extending in a direction intersecting the first and second planes, the inclined second actuation surface (Att. 2) having a transverse height that is at least one-half of the transverse height of the first actuation surface (Att. 2) with the transverse heights being measured in directions perpendicular to the first plane (P1).

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Furuta teaches the invention substantially as claimed. However, Furuta does not teach the size or dimension such as the transverse height of the first actuation surface being more than half of an overall transverse height of the actuating section as measured in directions perpendicular to the first plane.

It is common knowledge in the art to change the size/dimension of Furuta's transverse height of the first actuation surface as claimed in order to improve the leverage of the lever. The size or dimension of the transverse height of the first actuation surface as claimed would have been a matter of choice in design because the claimed structure and the function it performs are the same as the prior art. *In re Chu, supra*. See also change in size or dimension in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the size/dimension of Furuta's transverse height of the first actuation surface as claimed in order to improve the leverage of the lever as taught or suggested by common knowledge in the art.

Regarding claim 11, the control mechanism 9 includes a shift control mechanism that is arranged and configured to control movement of a shift control cable 8 upon movement of the control lever 2 or 2, 40 along the second plane (P2).

Regarding claim 12, the control lever 2 or 2, 40 includes a brake cable attachment portion arranged and configured to pull a brake control cable (Fig. 1, Att. 2) upon movement of the control lever 2 or 2, 40 from the rest position to the operating position when a substantially rearward force is applied to the first actuation surface (Att. 2).

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Regarding claim 13, the control lever 2 or 2, 40 is normally biased toward the rest position in order to release the brake control cable (Att. 2) after moving the control lever 2 or 2, 40 to the operating position and releasing the control lever 2 or 2, 40.

Regarding claim 14, the control mechanism 9 includes a shift control mechanism that is arranged and configured to control movement of a shift control cable 8 upon movement of the control lever 2 or 2, 40 along the second plane (P2).

7. Claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,647,823 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant apparently uses slightly different terminology in order to claim the same or substantially the same invention. *In re Griswold*, 150 USPQ 804 (CCPA 1966). See, e.g., the comparison among claim 10 of this application and claims 1 and 3 of Pat.'823 below.

<u>Common</u>	<u>Appl.'831</u>	<u>Pat.'823</u>
	mounting portion	
control mechanism		
control lever		
	first plane	brake operating plane
	second plane	shifting plane (claim 3)
	attachment section	
	actuating section	

Although claim 10 of this application calls for the mounting portion, attachment section, and actuating section, however, the control device claimed in claims 1 and 3 of Pat.'823

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inherently must have the mounting portion, attachment section, and actuating section in order to be operative for its intended design. The mounting portion, attachment section, and actuating section are conventional in the bicycle control device art as evidenced by the cited references. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form mounting portion, attachment section, and actuating section in the control device claimed in Pat.'823 in order to have the claimed device in claim 10 of this application as taught or suggested by common knowledge in the art. The size or dimension of the transverse height of the first actuation surface as claimed in this application would have been a matter of choice in design because the claimed structure and the function it performs are the same as the prior art. *In re Chu, supra*. See also change in size or dimension in MPEP 2144.04.

8. Claims 18 and 19 are allowed.

9. Applicant's arguments filed September 22, 2005 have been fully considered but they are not persuasive.

35 USC 112

The rejection under 35 USC 112, second paragraph, is vacated in view of Applicant's remarks.

35 USC 102(b)

Applicant's arguments with respect to the rejection of claims 1, 2, 4, 6, 7, and 10-14 as being anticipated by Evett and the rejection of claims 10-14 as being anticipated by Furuta have been fully considered and are persuasive. The rejection under 35 USC 102(b) based on Evett or Furuta has been withdrawn. Applicant's arguments with respect to Evett and/or Furuta have been considered but are moot in view of the new ground(s) of rejection.

35 USC 103

Applicant's arguments with respect to the rejection of claims 1, 3, 5, 8, and 10-14 as being obvious over Furuta have been fully considered and are persuasive. The rejection under 35 USC 103 based on Furuta has been withdrawn. Applicant's arguments with respect to Furuta have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

Applicant contends:

While the '823 patent generally discloses the same type of device as the present invention, claims 1 and 3 of the '823 patent fails to disclose or suggest the arrangement of the actuation surfaces as required by claim 10, especially as now amended. Moreover, as explained above, there is no common knowledge in the prior art of record that discloses or suggests this unique arrangement as asserted in the Office Action. Accordingly, withdrawal of this double patenting rejection is respectfully requested.

Contrary to Applicant's remarks, claims 1 and 3 of the '823 patent implicitly disclose or suggest the arrangement of the actuation surfaces as required by claim 10, especially as now amended. In fact, claims 1 and 3 recites each and every positively claimed element of claim 10 of this application except the size or dimension. However, it is well settled law that the mere change in size/dimension is a matter of choice in design since the claimed structure and the function it performs are the same as the prior art. *In re Chu, supra*. See also *Iron Grip Barbell Co. v. USA Sports Inc.*, 73 USPQ2d 1225 (CA FC, 12/14/04)(invention of patent for barbell weight plate having three elongated holes serving as handles must be found obvious absent substantial evidence of secondary factors supporting patentability, since three-handle feature of patent falls within range disclosed in prior art, which includes patents for plates having one, two,

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and four elongated handles). In addition, contrary to Applicant's remarks that there is no common knowledge in the art of record that discloses or suggests this unique arrangement, Furuta cited reference clearly shows Applicant's "unique arrangement" is indeed common knowledge. Accordingly, withdrawal of this double patenting rejection is respectfully denied.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

November 10, 2005

A handwritten signature in black ink, appearing to read 'Vinh T. Luong', with a long horizontal flourish extending to the right.

Vinh T. Luong
Primary Examiner

ATTACHMENT # 1

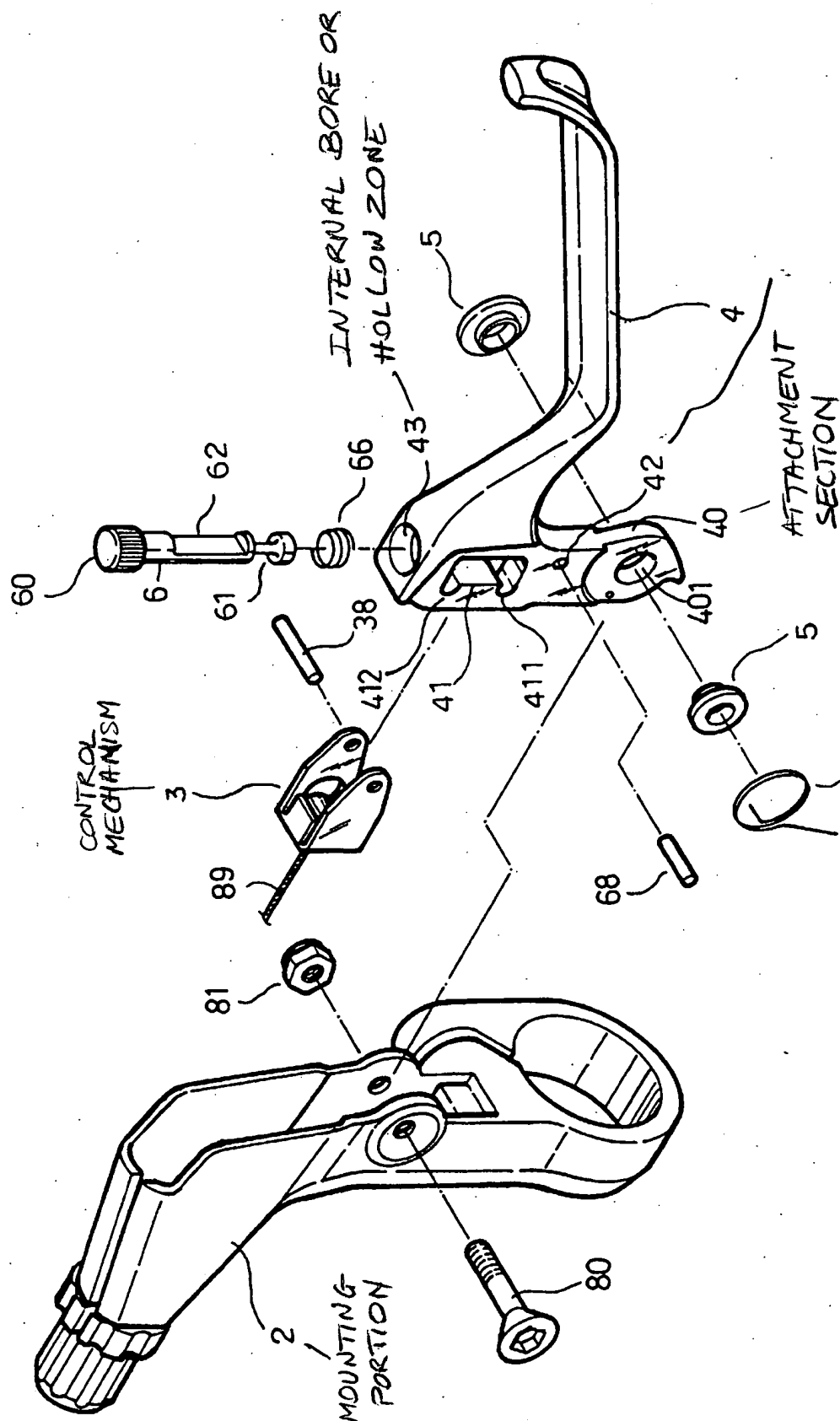


FIG. 1

NON-UNIFORM WALL THICKNESS

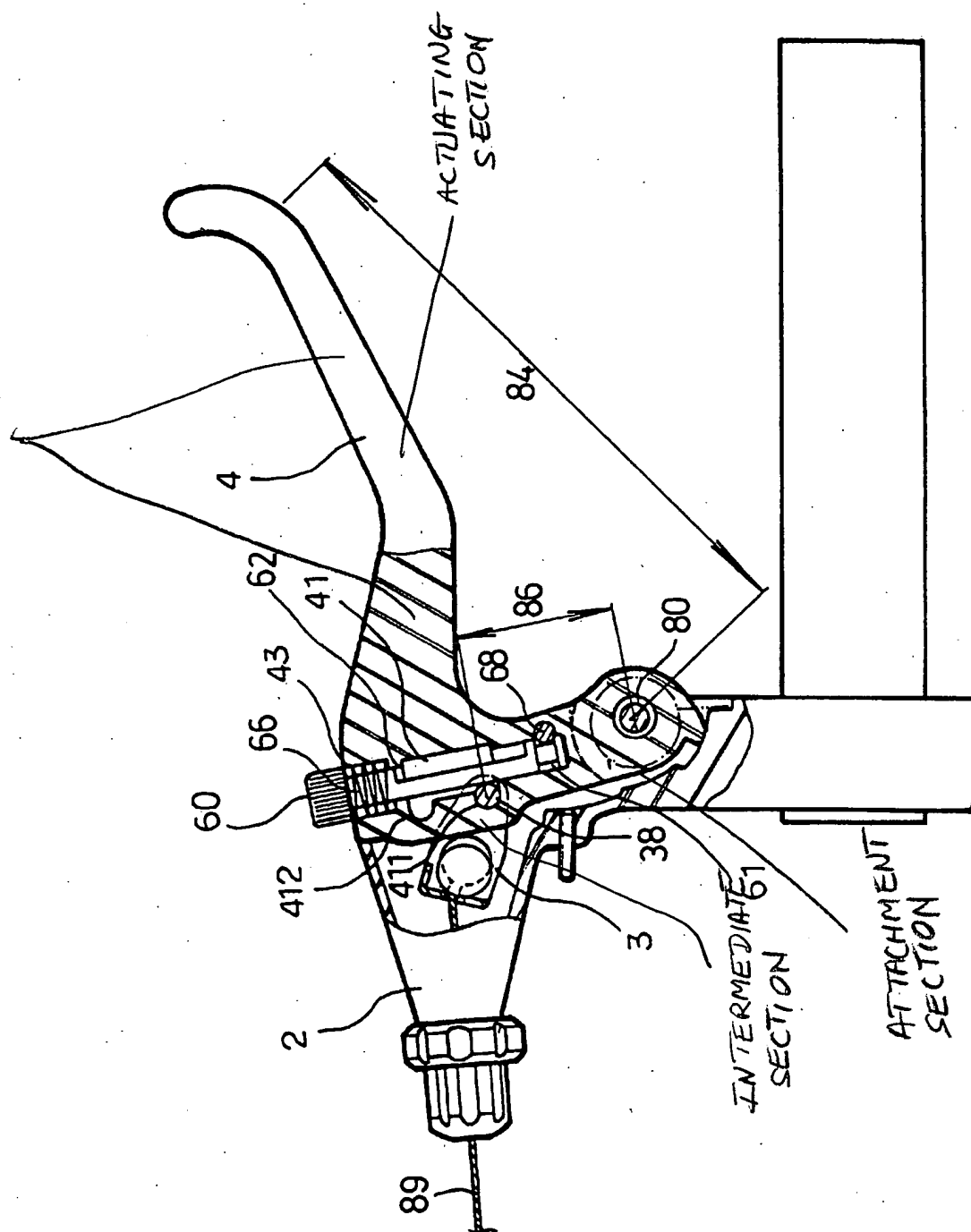


FIG. 2

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ATTACHMENT # 2

FIG. 1

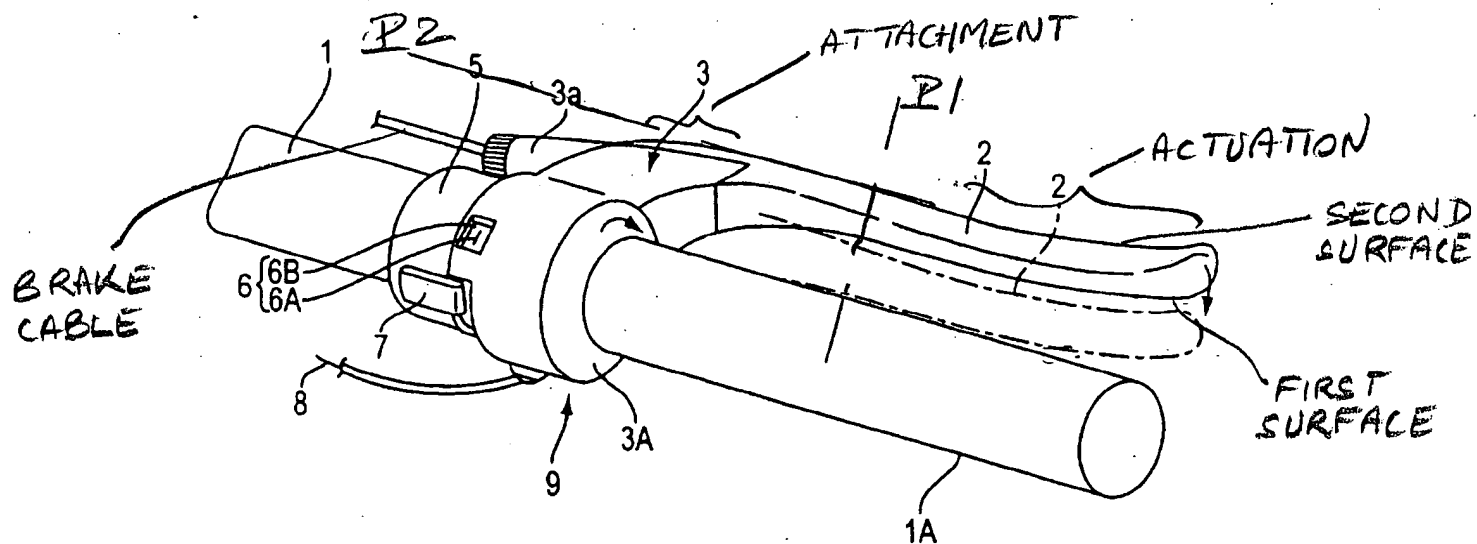
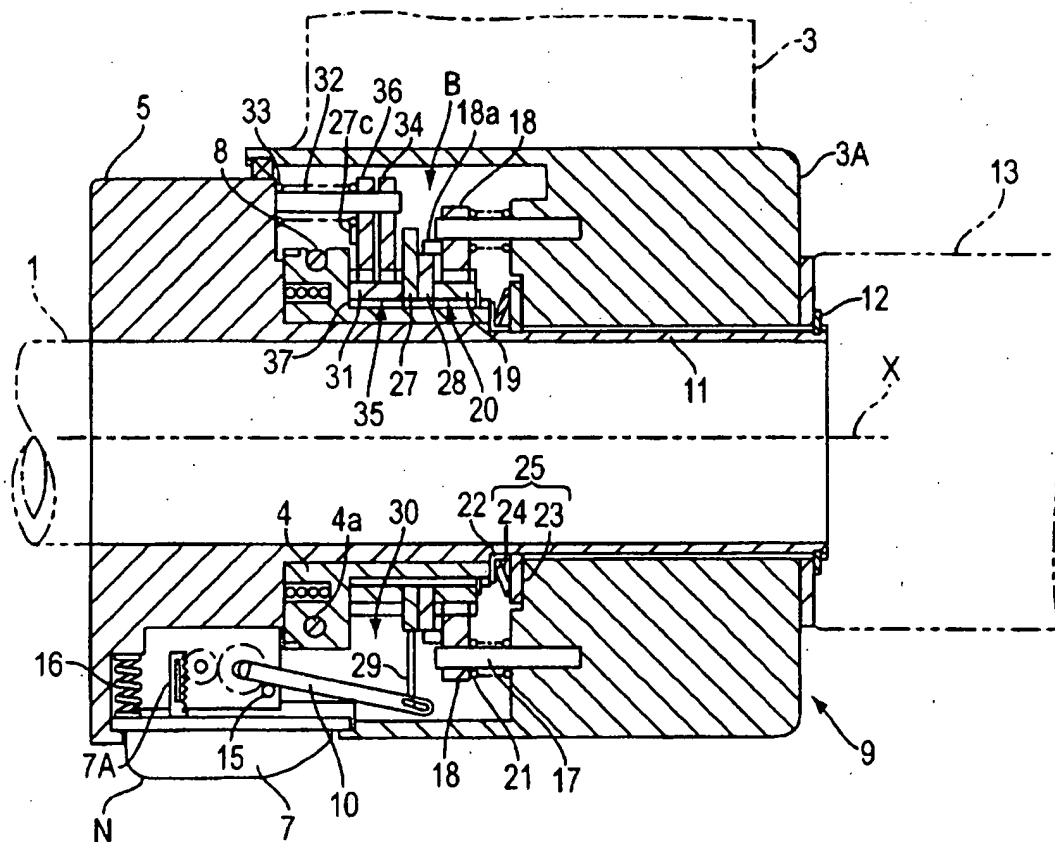
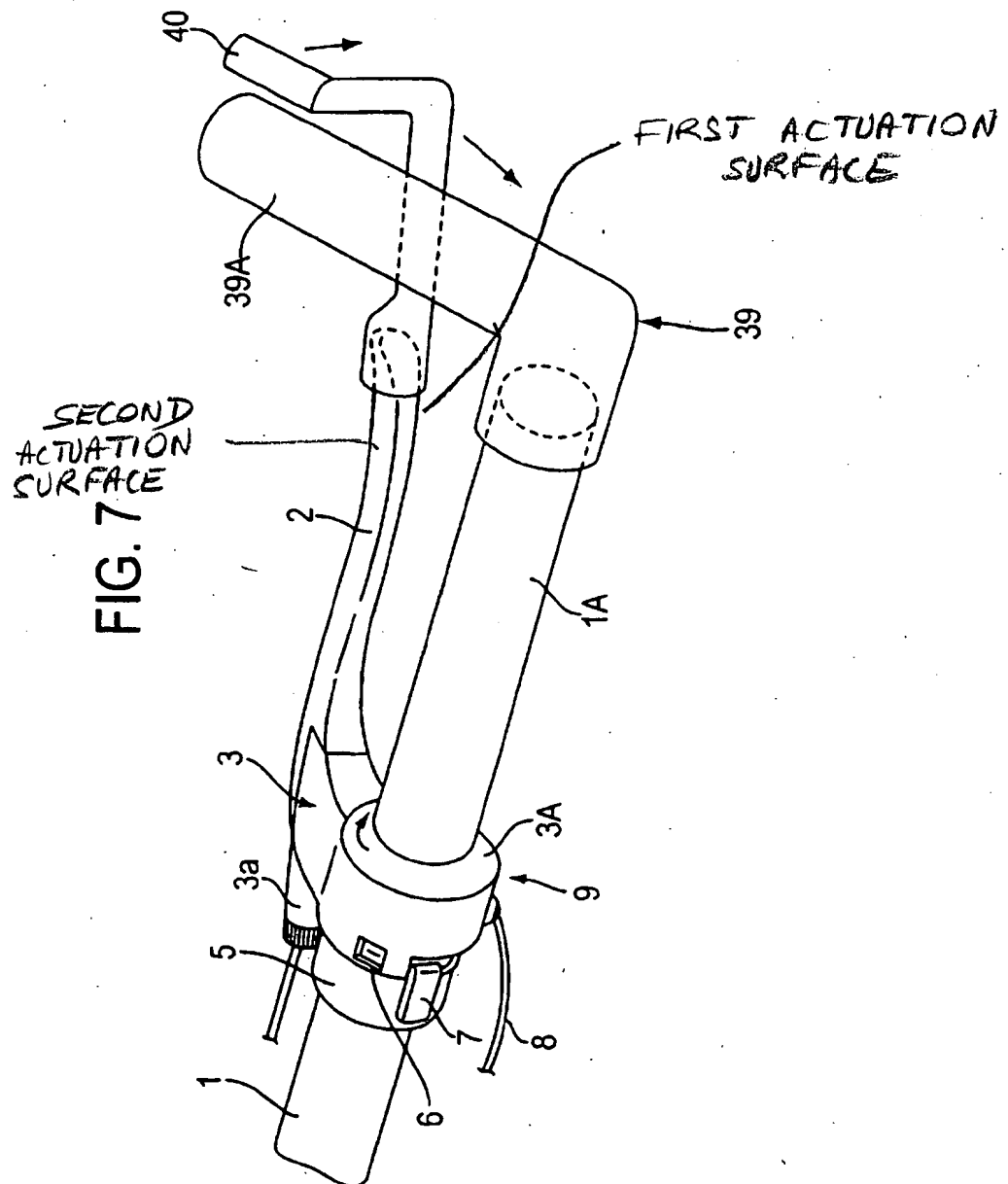


FIG. 2



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